

**1. A Multi Line Addressing (MLA) Liquid Crystal Display (LCD) system comprising:**

**a display unit; and**

**a display controller device, wherein the lines for each common sub-group between said display unit and said display controller device are interlaced from top to bottom of the display unit in a way that a first common sub-group is driven from a first side of the display controller device, a second common sub-group is driven from the opposite to first side of the display controller device, a third sub-group is driven from the first side again, a fourth common sub-group is driven from said opposite side again, and so on until the bottom of the display unit is reached.**

**2. The system of claim 1 wherein said MLA common sub-group comprises any number of lines.**

**3. The system of claim 1 wherein said MLA common sub-group comprises three lines.**

**4. The system of claim 1 wherein said MLA LCD display is having an active matrix.**

**5. The system of claim 1 wherein said MLA LCD display is having a passive matrix.**

**6.** The system of claim **5** wherein said MLA LCD display is an MLA Twisted Nematic (TN) LCD display.

**7.** The system of claim **6** wherein said MLA Twisted Nematic LCD display is an MLA Super Twisted Nematic (STN) LCD display.

**8.** The system of claim **6** wherein said MLA Twisted Nematic LCD display is an MLA Double Super-Twisted Nematic (DSTN) LCD display.

**9.** A Multi Line Addressing (MLA) Liquid Crystal Display (LCD) system comprising:

a display unit; and

a display controller device, wherein a number of MLA common

sub-groups are bundled into MLA common groups and the lines for each common group between said display unit and said display controller device are interlaced from top to bottom of the display unit in a way that a first MLA common group is driven from a first side of the display controller device, a second common group is driven from the opposite to first side of the display controller device, a third common group is driven from the first side again, a fourth common group is driven from said opposite side again, and so on until the bottom of the display unit is reached.

**10.** The system of claim **9** wherein said MLA common sub-group comprises any number of lines.

**11.** The system of claim **9** wherein said MLA common sub-group comprises three lines.

**12.** The system of claim **9** wherein said MLA LCD display is having an active matrix.

**13.** The system of claim **9** wherein said MLA LCD display is having a passive matrix.

**14.** The system of claim **13** wherein said MLA LCD display is an MLA Twisted Nematic (TN) LCD display.

**15.** The system of claim **14** wherein said MLA Twisted Nematic LCD display is an MLA Super Twisted Nematic (STN) LCD display.

**16.** The system of claim **14** wherein said MLA Twisted Nematic LCD display is an MLA Double Super-Twisted Nematic (DSTN) LCD display.

**17.** The system of claim **6** wherein said MLA common groups comprise two MLA common sub-groups.

**18.** The system of claim **6** wherein said MLA common groups comprise three MLA common sub-groups.

**19.**A Liquid Crystal Display (LCD) system comprising:

a display unit; and

a display controller device, wherein a number of common signal lines are bundled into common signal groups and the lines for each common signal group between said display unit and said display controller device are interlaced from top to bottom of the display unit in a way that a first common signal group is driven from a first side of the display controller device, a second common signal group is driven from the opposite to first side of the display controller device, a third common signal group is driven from the first side again, a fourth common signal group is driven from said opposite side again, and so on until the bottom of the display unit is reached.

**20.** The system of claim **19** wherein said common signal group comprises any number of lines.

**21.** The system of claim **19** wherein said common signal group comprises two lines.

**22.** The system of claim **19** wherein said common signal group comprises two lines

**23.** The system of claim **19** wherein said LCD display is having a passive matrix.

**24.** The system of claim **23** wherein said LCD display is a Twisted Nematic (TN) LCD display.

**25.** The system of claim **24** wherein said Twisted Nematic LCD display is a Super Twisted Nematic (STN) LCD display.

**26.** The system of claim **24** wherein said Twisted Nematic LCD display is a Double Super-Twisted Nematic (DSTN) LCD display.

**27.** A method to achieve reduced resistance of the connections between the display controller device and the MLA common sub-groups of the display unit of an MLA LCD display system avoiding differences of contrast between adjacent lines of the LCD display unit comprising the following steps:

5                    providing an MLA LCD display unit and a MLA LCD display controller device;

                    define number of lines per MLA common sub-group; and

                    interlace lines of MLA common sub-groups alternately from both sides of the display control device to the correspondent sides of the display unit in a way that the uppermost MLA sub-group is driven from a first side of the MLA  
10                    display control device, the second uppermost MLA sub-group is driven from

the side opposite to said first side, the third uppermost MLA sub-group is driven from said first side again and so on.

**28.** The method of claim **27** wherein said common sub-group comprises any number of lines.

**29.** The method of claim **27** wherein said common sub-group comprises three lines.

**30.** The method of claim **27** wherein said MLA LCD display is having an active matrix.

**31.** The method of claim **27** wherein said MLA LCD display is having a passive matrix.

**32.** The method of claim **31** wherein said MLA LCD display is a Twisted Nematic (TN) LCD display.

**33.** The method of claim **32** wherein said Twisted Nematic LCD display is a Super Twisted Nematic (STN) LCD display.

**34.** The method of claim **32** wherein said Twisted Nematic LCD display is a Double Super-Twisted Nematic (DSTN) LCD display.

**35.** A method to achieve reduced resistance of the connections between the display controller device and the MLA common sub-groups of the display unit of an MLA LCD display system avoiding differences of contrast between adjacent lines of the LCD display unit comprising the following steps:

5                    providing an MLA LCD display unit and a MLA LCD display controller device;

                    define number of lines per MLA common sub-group;

                    define number of MLA common sub-groups per MLA common group;

and

10                   interlace lines of MLA common groups alternately from both sides of the MLA display control device to the correspondent sides of the MLA display unit in a way that the uppermost MLA common group is driven from a first side of the MLA display control device, the second uppermost MLA common group is driven from the side opposite to said first side, the third uppermost MLA  
15                   common group is driven from said first side again and so on.

**36.** The method of claim **35** wherein said common sub-group comprises any number of lines.

**37.** The method of claim **35** wherein said common sub-group comprises three lines.

**38.** The method of claim **35** wherein said MLA LCD display is having an active matrix.

**39.** The method of claim **35** wherein said MLA LCD display is having a passive matrix.

**40.** The method of claim **39** wherein said MLA LCD display is a Twisted Nematic (TN) LCD display.

**41.** The method of claim **40** wherein said Twisted Nematic LCD display is a Super Twisted Nematic (STN) LCD display.

**42.** The method of claim **40** wherein said Twisted Nematic LCD display is a Double Super-Twisted Nematic (DSTN) LCD display.